

A World of Synthetics: Existing Condition

Prologue

“The Brazilian landscape architect Roberto Burle Marx, in the manner of Huysmans, recomposes the natural: he draws from its essence yet creates an entirely artificial environment. ‘There exists two landscapes: the natural, existing; and the humanized, constructed,’ writes Burle Marx. The artificial is the province of humanity.”

Catherine Seavitt inscribed this quote of Burle Marx in her article for Praxis 4, describing how the word “landscape” is inspected and broken down to be better understood. In an overstating manner Burle Marx breaks nature down into two distinct and separable categories, both of which rest in the physical presence of the landscape. In a more specific manner this book will break down the natural, but also the synthetic; their definitions, similarities, differences, scales and physicality. *“... when man, investigating, observing, pursues nature as an area of his own conceiving, he has already been claimed by a way of revealing that challenges him to approach nature as an object of research...”* (Martin Heidegger, *The Question Concerning Technology*).

A dissection of both the tectonic ontological nature as well as the mental, or phrenic, nature is the goal, primarily through the eyes of architecture, but also somewhat technology and civilization. I will start with what I call the “natural condition” and analyze the term: what it is, and how it affects architecture, society and the future. In the hopes of developing a sound argument, even though it’s not wholly possible, this analysis will ultimately show how nature has transformed, where this transformation will lead us

and how understanding these transformations can progressively aid civilization and architecture (since they are irrevocably connected with nature). For architectural clarity, “nature” will be referred to as the “original existing condition” throughout this book, and, with the unique array of lexicon I’ll be using, Section II will graphically explain under which captions and categories each term falls.

Nature versus the Synthetic

"And yet firmly implanted in my mind is the long-standing opinion that there is an omnipotent God who made me the kind of creature that I am. How do I know that he has not brought it about that there is no earth, no sky, no extended thing, no shape, no size, no place, while at the same time ensuring that all these things appear to me to exist just as they do now? What is more, just as I consider that others sometimes go astray in cases where they think they have the most perfect knowledge, how do I know that God has not brought it about that I too go wrong every time I add two and three or count the sides of a square, or in some even simpler matter, if that is imaginable? But perhaps God would not have allowed me to be deceived in this way, since he is said to be supremely good; [...] I will suppose therefore that not God, who is supremely good and the source of truth, but rather some malicious demon of the utmost power and cunning has employed all his energies in order to deceive me. I shall think that the sky, the air, the earth, colours, shapes, sounds and all external things are merely the delusions of dreams which he has devised to ensnare my judgment." (Rene Descartes, *Meditations*)

"Instead of having just one brain in a vat, we could imagine that all human beings (perhaps all sentient beings) are brains in a vat (or nervous systems in a vat in case some beings with just nervous systems count as 'sentient'). Of course, the evil scientist would have to be outside? or would he? Perhaps there is no evil scientist, perhaps (though this is absurd) the universe just happens to consist of automatic machinery tending a vat full of brains and nervous systems. This time let us suppose that the automatic machinery is programmed to give us all a collective hallucination, rather than a number of separate unrelated hallucinations. Thus, when I seem to myself to be talking to you, you seem to yourself to be hearing my words.... I want now to ask a question which will seem very silly and obvious (at least to some people, including some very sophisticated philosophers), but which will take us to real philosophical depths rather quickly. Suppose this whole story were actually true. Could we, if we were brains in a vat in this way, say or think that we were?" (Hilary Putnam, Reason, Truth and History)

Nature, in its purest form, is a complex organization of events and processes of perpetual occurrence. Hydraulics, geography, erosion, metamorphosis etc. Words directly correlated with the idea of nature; what nature is, what it should be and how we think nature is related to us. Furthermore these words maintain both a physical and an imagined presence; the physicality of geography (its actual tectonic performances in everyday life), versus the mentally projected image of rolling hills, towering mountains and old trees. The relative meanings of these words, among other things, help us define our position on nature, and more importantly lead us to draw conclusions of where we as

a species, as well as civilization, fit into the world. The extent of influence and scale of a civilization has been primarily based upon the allowances of these perpetual occurrences. Be it agriculture, aquatic transportation or military superiority, nature plays an integral and unavoidable role in the expanse or decline of a civilization. Despite his “humans as an epidemic” point of view, Ian McHarg accurately characterizes nature’s inseparability to the progress of human development in his book “Design with Nature” writing that, *“If one accepts the simple proposition that nature is the arena of life and that a modicum of knowledge of her processes is indispensable for survival and rather more for existence, health and delight, it is amazing how many difficult problems present ready solution.”*

Although nature maintains a primary role in the shaping of a culture or civilization it is not ubiquitous; it does however act as the origin for other influences. Architecture, for instance, has been the physical expression of a civilization’s power, beliefs, hierarchy and technological advantage by means of the built form / environment. The “archi” moment of architecture, as simple and imperfect as it may have been, spawned from the understanding and exploitation of nature. Similarly, many civilizations throughout history that have been remembered for their technological achievements (the Roman aquaducts and roads, Chinese black powder, Viking nautical prowess, Mongolian war tactics) derive their development from a manipulation of natural phenomenon that produces advantage. *“physics... sets nature up to exhibit itself as a coherence of forces calculable in advance, it orders its experiments precisely for the purpose of asking whether and how nature reports itself when set up in this way”* (Martin Heidegger, *The Question Concerning Technology*). Therefore, technology, coupled with ingenuity, is a

product of nature catapulting nature to be understood as the origin from which all architecture and technology has derived.

Through the gradual expansion of knowledge, architecture has built upon the learning of previous generations as a way to achieve advancements in the field. The primitive hut was the first instance when man manipulated the landscape for better utility transforming the natural landscape into the synthetic landscape. The natural landscape is what I will call the “original existing condition” which better relates nature to architecture since architects ordinarily deal with conditions (site conditions, as-built conditions, field conditions etc). Although the date is unknown, the series of events that lead to the formation of the primitive hut began simply by the bending of a tree for shelter. This make-shift covering forever changed the world, and even though this change has been developing over the span of many centuries both in aesthetics and scale, the germination of architecture was this moment. Acting as a new and un-natural form introduced into the world, the primitive hut is the first creation of a synthetic landscape. Although synthetics, an un-natural condition formed or generated from the manipulation of a naturally occurring condition, had previously existed (flint stones, rocks with cutting edges and probably fire), this is the first time the synthetic was applied to shelter (i.e. architecture). To difference other synthetics from an architectural synthetic the phrase “synthetic landscape” is used. A synthetic landscape is the resulting deformation of one or both the cognitive natural condition and physical natural condition after the manipulation of the original existing condition through architecture. To be more precise about this lexicon, the synthetic landscape can be observed by a disturbance of the natural landscape through design, mapping or other means of interference creating a condition

that does not, or cannot naturally occur. Therefore, the primitive hut, even though bent trees do exist, is a synthetic landscape because that specific tree did not exist in a bent manner until its form was redesigned through human inscription. Since that moment in time, architecture has built up knowledge from previous designers and educators further extending the field with each progressing generation.

Over time the influence of synthetic landscapes has grown with the expanse of civilization and knowledge. Every civilization has built upon the knowledge of their ancestors resulting in information growth which has been rapid at times while conversely slow at others but still maintaining the lineage of information and knowledge. Knowledge, acting as a catalyst for control, allows the natural conditions to become logical and numerical ultimately replacing the natural with the synthetic. As an overarching concept of our relationship with nature, the desire for man to control his environment has been an unequivocal mainstay through time and across cultures. The quests for land domination by Alexander, Genghis Khan and others, are historical examples of this condition; politically charged conquests of major swaths of land and people acting as an incendiary means for cultural expansion. Coupled with this idea is the typical proportional correlation between personal land ownership and military land control (the more square miles a military can control, the more acreage a citizen of that civilization can own, and vice versa). As Africa and the Americas were being colonized by Europe, the size of each country multiplied overnight resulting in booming economies and even larger gardens. Most notably, the gardens characterized during this time are of an unprecedented scale as was the magnitude of foreign land colonization. The only time and place a military / garden scalar is not true is in contemporary America, resting in the

wake of the Jeffersonian grid adoption, where the potential expanse of wealth or height of a building is the denominator en lieu of the size of the garden. Nevertheless, the control, ownership and manipulation of nature, i.e. the synthetic, have been integral aspects of western civilization.

The Natural Condition

The natural condition is the result of the assimilation of the cognitive and physical natural conditions. Both the cognitive and physical natural conditions act as primary umbrella terms that enclose specific phrases and terms as well as their connections to one another. Not to be confused with the original existing condition, the natural condition is partly the original existing condition (nature) as well as the new existing condition (synthetics) that man has created. However, these phrases are derivatives of the primary umbrella terms, the “physical natural condition” or the “cognitive natural condition,” and are understood as such. Through the definitions of the primary umbrella terms, the idea of synthetics versus the original existing condition can be understood as being cognitive (phrenic) and physical (ontological) respectively. Their separations are not absolute even though they rest under different categories, but are connected by synthetics which is born from the original existing condition, as stated earlier when defining architecture’s (synthetics – synthetic landscapes) accordance with the original existing condition.

The cognitive natural condition is our perception of nature and how we believe or how we know it to exist. Two distinct views emerge from this definition: our perception

(phrenic image) and our knowledge (science) of nature. Both views are placed in this bracket of cognitive nature being that the concepts behind them are primarily of mental perceptions rather than physical. And although science can be physically experimented with, its fundamental understanding is afforded by one's intellectual limit. Unlike knowledge, our perception of the original existing condition is a split characteristic between both the cognitive and physical natural conditions. It pendulates this gap being that it spawned from the tectonics of physical nature; however it acts as a cognitive projection of that physical nature. This image of the original existing condition is different for every person, but its placement as a cognitive aspect of the natural condition remains constant. In many ways this image has been altered and manipulated by its counterpart, knowledge, transforming how we view the original existing condition and where we think it to exist, into what we know about the original existing condition and how we can control it. Throughout time the overall capability of a civilization to control the original existing condition has come through the gained knowledge of it setting the stage for the prediction of the original existing condition. With prediction eventually comes control, but only after the original existing condition has been successfully manipulated and or altered. The synthetic landscapes of architecture, among other elements, instigate this manipulation. The capacity to predict the potential force of erosion, geothermic phenomena, material and construction allowances (all physical processes or cognitive knowledge) advantages architecture by permitting the emergence of the synthetic landscape from the original existing condition.

The physical natural conditions are the processes and spatial ontology of the original existing condition from which the cognitive natural condition was born. As

mentioned earlier hydraulics, geography, erosion, and metamorphosis are some examples of this condition as well as terms like mitosis, atoms, fusion, dilution, space etc. The processes of the physical natural condition, at least currently, are mostly indivisible and perpetual continuing to exist primarily as man's lack of knowledge of the physical world. Furthermore, by simply understanding them, as aforementioned, is not to say that a totality of control is possible, but one must first develop the capacity to predict, followed by manipulation or absolute alteration, ergo architecture's synthetic landscapes. An example of this is a dam in a river, whose installation is the response of human necessity coupled with the desire for human dominance over the original existing condition. One could argue that a dam is a controlling aspect based on the knowledge gained about a river and water allowing total control over the river and the water itself. This argument is untrue. The physical understanding of the river and how it works precipitates prediction through which alteration comes. *"The hydroelectric plant is not built into the Rhine river as was the old wooden bridge that joined bank with bank...the river is dammed up into the power plant. What the river is now, namely, a water-power supplier, derives from the essence of the power station. ... [But] the Rhine is still a river in the landscape, is it not?"* (Martin Heidegger, *The Question Concerning Technology*). The river still flows as it always had, but it has been altered and not absolutely controlled, otherwise the need for a dam would not exist. The water could be ordered at the atomic level to do man's bidding without the physicality of a dam structure. The physical natural condition, therefore exists solely as a product of man's lack of knowledge of the physical world, accepting what is not understood either through belief in chaos (butterfly effect), religion (destiny), un-substantiated law (gravity) or an elementary understanding of how to

manipulate it (a dammed river). The reason the dam is a good example of this is that the mathematics of liquid mechanics is calculable but total manipulation is still not possible. Similarly, the examples listed earlier, butterfly effect, destiny, and gravity, are understood only through the lens of the spectacle (observable) and not that of knowledge. The causal implications of these can be measured but not yet fully understood, manipulated and ultimately controlled. Similarly, the dam acts as a responsive tectonic of the dynamics of the water, changing the appearance of the river, rather than the controlling element, meaning the original existing condition still claims dominance over the liquid mechanics of the river.

The question then becomes, to what degree can the physical natural condition be controlled and what happens at the acme of that control? When answering this question the cognitive natural condition umbrella term must first be understood. Through the mental perception of the original existing condition versus the knowledge of the original existing condition, the cognitive natural condition is developed. Knowledge gained about the physical natural condition is understood only under the umbrella of the cognitive natural condition. So the degree of control that can be placed upon the physical natural condition is based upon the knowledge gained from it under the cognitive natural condition. The pinnacle of control is then unknown since the extent of knowledge that can be gained from the physical natural condition is, at this time, indeterminable as is what could potentially happen when that degree of control is achieved. Many have hypothesized the outcome of the future, but they have typically been at odds with one another; one being pessimistic, the other optimistic.

Throughout time these conditions, the cognitive and physical natural conditions, have slowly been erased as man's knowledge has expanded bringing control to the chaotic, reason to the illogical, and purpose to existence. A shift happens when the physical natural condition falls under absolute control, transferring that aspect of the physical natural condition to the cognitive natural condition (where knowledge rests). Knowledge is a product of cognitive capacitance, so knowledge gained from the physical natural condition is immediately transferred to the cognitive natural condition side of the spectrum. Man's ability to control the physical natural condition has come with technological advancement. To focus this more, architecture has been an instigator for this phenomenon to take place representing the technological accomplishments of civilization through the physical control of the original existing condition which is developed into synthetic landscapes. Architecture is the sole practice that deals with the control of the physical natural condition with every single constructed space, maintaining the unique capability to manipulate both the physicality of the ground as well as the space above engaging not only the surface of the original existing condition, but the subterranean as well as the extra-terrestrial. Over time the breadth of this sectionally constructed space has grown in scale, but more so in plan, sprouting cities across the globe as a representational display of our control over the original existing condition.

The Controversy

The gradual control and removal of both the cognitive and physical natural conditions has been relatively constant since architecture and technology's inception. However, in 1993 a sudden shift happened when knowledge considerably expanded and the cognitive natural condition was abruptly erased. In order for the cognitive natural condition to be an aspect of the natural condition both knowledge and a mental image of the original existing condition have to exist. The image of the original existing condition (the phrenic-state) is based on the physical natural condition as well as our own imagination (when you think of a picnic in a wooded area, specific trees, fields and plantlife comes to mind). In order to delete this, the image must be replaced with a representation of what is going on based upon the knowledge (knowledge-state) of that situation. When the image gets deleted the knowledge is the only remaining aspect debasing the cognitive natural condition and replacing it ($A + B = C$; $B = 0$; $A = C$). Knowledge gained from the physical natural condition goes directly to knowledge under the cognitive natural condition, and the image of nature is no longer that of the physical natural condition, but an image of the knowledge gained from the physical natural condition. The cognitive natural condition is therefore deleted. The only way to accomplish such a deletion is to either transform the original existing condition from a phrenic-state to a knowledge-state, i.e. into a numerical, logical set of events, circumstances and ordering, effectively replacing the image of the original existing condition with a technological representation of the original existing condition, or vice versa. Considering the incapacity for people to "unlearn," the reversal of the phrenic-state to a knowledge-state is not possible. So, through knowledge comes the gradual deletion of the phrenic-state with understanding, mapping and structuring (technological

representations), concluding with the total eradication of the cognitive natural condition through design and control, i.e. knowledge. James Corner puts it best when speaking of knowledge and control in his essay “Eidetic Operation and New Landscapes” from “*Recovering Landscapes*” by saying that, “*Total vision affords a powerful set of instruments to not only describe the world but also to condition and control it.*” Through the acquisition of knowledge comes the means to utilize that knowledge for the purpose of extending control to the eventual totality end.

“*Maps make visible what is invisible*” (James Corner, *Taking Measures Across the American Landscape*, Chapter 2-pp18). The GPS / GIS system launched by the United States Air Force is a matrix of satellites that map the earth’s surface to a resolution of less than 6 inches. The final satellite in this matrix was launched in 1993, ushering in a new era of mapping and knowledge unlike any in human history. The original purpose of this system, like most new technologies, began in the military corner of civilization and has since grown into many other fields. This satellite system uses triangulation to give exact coordinates of objects located on the Earth’s surface as well as below. It can be used to track “tagged” animals that help biologists and zoologists better understand the migratory and predatory tendencies of different species throughout the world. Other scientists use the mapping system to gather information on plate tectonic movement, volcanic activity, weather forecasting, ultraviolet radiation, ozone layer depletion, changes in mountain heights, sea level heights, polar ice cap sizes, temperature variations and more. The potential of knowledge availability is virtually endless, and the knowledge gained through this system has turned the world into a gridded representation of itself, simultaneously connecting people throughout the world while separating man from

nature (the original existing condition). Although the separation of man from the original existing condition has been civilization's plight since the beginning, the ability for its realization didn't come until the GPS / GIS installation, when the image of the original existing condition was replaced by a numerical and logical graphic leaving the knowledge acquired as the sole cognitive representative of the original existing condition. Every square inch of the planet is now precisely mapped expanding the knowledge of civilization of the original existing condition to new dimensions. The image of the original existing condition, the phrenic-state, is now understood through the knowledge-state via the GPS / GIS mapping system, the mental image of the 'unknown' is no longer precedent since the images provided by the GPS / GIS system give exacting specifications on the status, position and state of the original existing condition.

This mapping has since gone public, from portable GPS handheld devices to computer programs like Google Earth, which allow anyone to see aerial photographs, maps and geographic information for anywhere on earth at any time. *"To gauge and space the world is not only to reflect upon the nature of human existence on earth but also to construct a relationship among people, community and environment"* (James Corner, *Taking Measures Across the American Landscape*). The open availability of the GPS / GIS system has globalized the populous opening the door for information expansion and consumption on an unprecedented scale. Knowledge, in this sense, is one of the general public and not necessarily that of the educated elite. An uneducated person can go online and see aerial images of the world, view the measured differences in elevation of Appalachia after mountain-removal surface mining and more without ever having stepped into a classroom, and without the requirement of external instruction

(except for the ability to read). Furthermore, with the advent of a public internet, that same person can talk with someone half-way around the world for free, and in real-time (face-to-face, not phone-to-phone) via satellite connections. This phenomenon constitutes a paradigm shift in the zeitgeist of western civilization; a mass globalization of the public through the mapping capabilities of GPS / GIS (which was the primary driver for the deletion of the cognitive natural condition). During this time one might ask, “What has happened to the physical natural condition during all of this?” The physical natural condition has felt the effects of the paradigm shift with the accelerated expansion of civilization, not necessarily civilization as a physical abstract, into areas once deemed uninhabitable, or off-limits. Although this has changed its scalar presence, the physical natural condition is still maintained as well as its processes, which until their absolute control will continue to remain. The shift happened, therefore, almost entirely in the cognitive natural condition side of the natural condition pyramid.

Controversy and Architecture

The rapid change in technology, information and technique that occurred in 1993 resulted in a paradigm shift for architectural practice too. Its importance to the field is inherent in the connection of architecture with nature, acting as the mother which borne the built form, and architecture to civilization. The existing natural condition has been the backbone and tabula rasa of architecture throughout history and with its cognitive

image being deleted comes the requisite for a new understanding and appreciation of how the world is structured and where architecture fits into the contemporary.

More than one hundred years ago two Ohioans became the first in flight and until recently the architectural implications of flying have been mostly overlooked by practitioners. Since architecture has, throughout history, represented the zeitgeist of a civilization, how can it still maintain that status when it takes decades to catch up with potential significances of the technological advancements of that society? The truth is that it cannot hold claim to the popular or the avant-guard of such a civilization. Simply utilizing modern technology in the field is not the same as understanding the potential positive and negative ramifications of that technology either. The GPS / GIS system has, along with deleting the cognitive natural condition, graphically globalized the populous unlike any other time in history, and an understanding of this is imperative as a means for maintaining the status of architectural practice as society's ambassador.

The invisible periphery of the individual site has typically been the boundary of the survey and maybe a few surrounding city blocks, but the design of synthetic landscapes now has more obvious and larger connotations and can no longer be looked upon in this isolated, closed-loop view. Architects do tend to view the larger scale results of the built form much more clearly than the populous, but the scale is and has been too small for too long. For instance, there was a project for a proposed parking lot addition to a local business that involved the razing of a few derelict houses to the rear of the building. Adjacent to those houses was a community of late nineteenth century / early twentieth century homes whose home owners opposed the expansion of the parking lot. The community felt that this parking lot would be an imposition on the community, and

the consulting architects the community hired felt that it disturbed the urban fabric of the city as well. The business owners responded by simply stating, “It’s just a parking lot of about a dozen spaces. How can it affect anything anywhere else in the city?” In accordance with the business owners (who pay the bills), the architects that designed the parking lot agreed stating that it “won’t affect the surrounding community and city as the consulting architects have suggested.” The problem is that much of the time architects look at a scale far too small as a factor in the designing and constructing of a building.

Although this book is not written in accordance with any tree-hugging hippies, the fact remains that architecture represents a core responsibility to the development of civilization through the eyes of a globally responsible society. Thinking inside the “closed loop” will only result in further separating man from nature, but will also cause architecture to gap away from the society it is supposed to represent. The synthetic landscape that architects deal with (the built form / environment) can act as a catalyst for the advancement of society, not necessarily embracing every new thing, but rather recognizing new technologies, techniques and ways of representation and critically discussing the topic through architectural design and theory. The GPS / GIS system cannot be overlooked as being simply a new tool at the architect’s disposal, or ignored completely, but the result of its integration into everyday life should get a close look by the field as being good, bad or somewhere in between. By deleting the cognitive natural condition, the GPS / GIS mapping system plays an important role in the transformation of the natural condition that affects architecture at the fundamental level, and through general architectural discourse this problem should be addressed.

Epilogue

Although there is much to absorb from this book, the underlying idea is that nature, in contrast to Burle Marx's simple reading of real nature and synthetics, is in fact a complex balance of its physical presence and its cognitive understanding. This in-depth analysis reveals that the cognitive and physical natural conditions have been gradually eroding as civilization has expanded around the globe. Architecture's role in this deletion is that of a tectonic nature, developing the acquired knowledge into a collective whole where the information can be utilized for predicting, manipulating and controlling the original existing condition through synthetic landscapes, transforming the original existing condition (nature) into the new existing condition (synthetics). This deletion was accelerated in 1993 by the implementation of the GPS / GIS satellite system causing the knowledge-state of the world to grow to a level that ultimately replaced the phrenic-state (image of nature) leading to the evaporation of the cognitive natural condition. Going largely unnoticed and even ignored, the deletion of the cognitive natural condition acts as a contrastingly major transformation of the natural condition. The GPS / GIS mapping system has globalized the populous, meaning that the focus of civilization has expanded beyond borders to recognize the global impacts of actions and inactions (William McDonough on China). Architecture, which has represented the zeitgeist, or spirit of the times, for civilization in the past, is lagging behind, not observing the paradigm shift that happened with the GPS / GIS technology and not discussing its potential implications (good or bad) in an architectural format. Typically, GPS / GIS is looked upon as a new

tool at the architects' disposal, and not as a controversial, or world-changing technology.

This book is written to bring to light the series of events that led to the deletion of the cognitive natural condition by the GPS / GIS satellite mapping system with the desire that it can spawn an architectural discussion on the matter, and end the era of overlooking the paradigm shift that happened in 1993, beginning the re-establishment of architecture as society's ambassador.

Bibliography

Programming the Urban Surface, Alex Wall, New York: Princeton Architectural Press, c1999

Synthetic Regionalization: The Dutch Landscape Toward A Second Modernity, Bart Lootsma, New York: Princeton Architectural Press, c1999

Praxis: journal of writing + building, Praxis No. 4, New York, NY: Praxis Inc., c2002

Landscape: 9+1 young Dutch landscape architects / essays by Henk van Blerck and Jörg Dettmar, Rotterdam : NAI Publishers ; New York, N.Y. : Distributed Art Publishers [distributor], c1999

The artificial landscape: contemporary architecture, urbanism, and landscape architecture in the Netherlands, Hans Ibelings, Rotterdam: NAI Publishers, c2000

Groundswell: constructing the contemporary landscape, Peter Reed, New York: Museum of Modern Art, 2005

Points + lines: diagrams and projects for the city, Stan Allen, New York: Princeton Architectural Press, c1999

Design With Nature, Ian L. McHarg, The Natural History Press, Garden City, NY, c1969

Points + lines: diagrams and projects for the city, Stan Allen, New York: Princeton Architectural Press, c1999 (re-read)

Reason, Truth, and History, Hilary Putnam, Cambridge University Press, New York, NY, c1981

A guided tour of René Descartes' Meditations on first philosophy / Christopher Biffle; with a complete translation of the Meditations by Ronald Rubin, Christopher Biffle & Ronald Rubin, Mayfield Pub. Co., Mountain View, Calif. c1989

Taking Measures Across the American Landscape, James Corner & Alex S. MacLean & Denis Cosgrove, Yale University Press, New Haven, CT and London, England c1996.

Denatured Visions: Landscape and Culture in the Twentieth Century, Edited by Stuart Wrede and William Howard Adams, The Museum of Modern Art, New York, NY c1991.

Basic writings from Being and time (1927) to The task of thinking (1964) / Martin Heidegger ; Martin Heidegger, edited, with general introd. and introductions to each selection by David Farrell Krell, New York : Harper & Row, c1977

Nature Recalled by Marc Treib, from **Recovering landscape : essays in contemporary landscape architecture**, Edited by James Corner, New York : Princeton Architectural Press, c1999

Eidetic Operations and New Landscapes by James Corner, from **Recovering landscape : essays in contemporary landscape architecture**, Edited by James Corner, New York : Princeton Architectural Press, c1999

Arch 783 Readings

Heuretics: The Logic of Invention, Gregory Ulmer, “Chapter 1” (1994), pp. 3-15

Towards a New Architecture “Eyes which do not see,” Le Corbusier, (1931), pp. 85-148

Learning from Las Vegas “Historical and other precedents: Towards an Old Architecture” Robert Venturi, Denise Scott Brown, Steven Izenour, (1972), pp. 104-119.

S M L XL “Bigness,” Rem Koolhaas, (1995), pp. 495-516

Royal Institute of British Architects Journal “The Case for a Theory of ‘Modern’ Architecture,” John Summerson, (1957)

Architecture and Disjunction “Spaces and Events,” Bernard Tschumi, (1983), pp. 139-150

Delirious New York , “Definitive Instability: The Downtown Athletic Club” and “The Frontier in the Sky,” Rem Koolhaas (1978), pp. 82-91; 152-158

Architectural Design “Architectural Curvilinearity: The Folded, the Pliant and the Supple,” Greg Lynn, v.63 (1993), pp. 8-15

Log 3 “Consistency: A conversation with Alejandro Zaera-Polo,” Peter Macapia, (2004), pp. 37-49

Crib Sheets “Geometry,” Lavin, Furjan, Dean (Eds), (2005), pp. 124-128

Variations on a Theme Park “Inside Exopolis: Scenes from Orange County,” Edward W. Soja, (1992), pp. 94-122

Ladders “Inundation of Space,” Albert Pope, (1996), pp. 98-147

Project on the City 2: Harvard Design School Guide to Shopping “City of Shopping,” John McMorrough, ed. Rem Koolhaas (2001), pp. 193-203

Log 5 “Met Form,” Lars Lerup, (2005), pp. 28-31

Content “12 Reasons to Get Back into Shape,” R. E. Somol, (2003), pp. 86-87

Log 5 “Go Figure,” Ron Witte, (2005), pp. 76-81

Quaderns “The Hokusai Wave,” Alejandro Zaera-Polo; “Conversation over cocktails,” Sylvia Lavin; “What we need here is – Failure to Communicate” Jeff Kipnis, (April 2005), pp. 76-87

Praxis 5 “Forum: Design and Crime,” Foster/Hays, Kwinter, Scott, Speaks, (2003), pp.10-23

hunch: disciplines “TRANSdisciplinarity,” Mark Linder, pp. 12-15; “Monkey’s, Coyotes, and Architects,” R. E. Somol, pp. 118-123; “Some thoughts on contemporary paintings in the hope that analogies to architecture might be drawn....,” Jeff Kipnis, pp. 26-31, (2005)